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EXAMINER	
MURPHY, RHONDA L	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/021,705	WENDORFF, WILHARD VON	
	Examiner	Art Unit	
	RHONDA MURPHY	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/15/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,9-23,25-38,40-56 and 58-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,9-23,25-38,40-56 and 58-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This communication is responsive to the amendment filed on 9/15/08. Accordingly, claims 7, 8, 24, 39, 47, 64 and 65 have been previously canceled and claims 1-6, 9-23, 25-38, 40-56 and 58-63 are currently pending in this application.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 9, 15, 31 and 47 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6, 9-23, 25-38, 40-56 and 58-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiragaki et al. (US 6,657,952) in view of Yim (US 2003/0206527 A1) and Fawaz et al. (US 6,970,424).

Regarding claims 1 and 31, Shiragaki teaches a communication system, comprising: a plurality of transceivers (Figs. 1 & 2; nodes 105-108); a communication bus connected to said plurality of said transceivers to enable transmission of communication information between individual ones of said plurality of said transceivers (see Fig. 1);

said communication bus having a ring-shaped structure connecting each one of said plurality of said transceivers to a respective one of said plurality of said transceivers that is adjacent in a clockwise direction, defined as a respective clockwise adjacent transceiver, and to a respective one of said plurality of said transceivers that is adjacent in a counterclockwise direction, defined as a respective counterclockwise adjacent transceiver (col. 4, lines 51-60); said communication bus having a plurality of bus sections defining a plurality of first bus sections and a plurality of second bus sections (see Fig. 1; bus sections between nodes); each one of said plurality of said transceivers being connected to said respective clockwise adjacent transceiver via a respective one of plurality of said first bus sections (see Fig. 1; bus sections between nodes); each one of said plurality of said transceivers being connected to said respective counterclockwise adjacent transceiver via a respective one of said plurality of said second bus sections (see Fig. 1; bus sections between nodes); each one of said plurality of said transceivers including a first receiver (Fig. 2; ingress line 101 at ADM 209) and a first transmitter (Fig. 2; egress line 101 at ADM 209) that are associated with a respective one of said plurality of said first bus sections; each one of said plurality of said transceivers including a second receiver (ingress line 102 at ADM 210) and a second transmitter (egress line 102 at ADM 210) that are associated with a respective one of said plurality of said second bus sections; each one of said plurality of said transceivers including a control device (see Fig. 2; monitor 215 coupled to switches 211-214) for controlling said first receiver of said one of said plurality of said transceivers, said second receiver of said one of said plurality of said transceivers (see

Fig. 2; col. 5, lines 39-50), said first transmitter of said one of said plurality of said transceivers, and said second transmitter of said one of said plurality of said transceivers (see Fig. 2; col. 5, lines 39-50); said control device of each of said transceivers activating said first transmitter for transmitting first ones of the communication information in the clockwise direction via said communication bus (col. 5, lines 51-64); and said control device of each of said transceivers activating said second transmitter for transmitting second ones of the communication information in the counterclockwise direction via said communication bus (col. 5, lines 51-64); said control device of each of said transceivers being constructed such that, when an operation is being performed to transmit at least one of the first ones of the communication information and the second ones of the communication information, said control device of said transceivers checking for an error and if the error is found, said control device of said transceivers, after a given delay time, causing an operation to be performed to retransmit at least one of the first ones of the communication information and the second ones of the communication information via a transmitter that is selected from the group consisting of said first transmitter and said second transmitter (col. 6, lines 1-15).

Shiragaki fails to explicitly teach identifying retransmitted communication information.

However, Yim teaches transceivers constructed to identify retransmitted communication information (page 4, paragraph 83, page 5, paragraph 91); and said control device of each one of said plurality of said transceivers constructed such that: when ones of the communication information are received, which are not intended for

said one of said plurality of said transceivers and which have been identified as being retransmitted by said control device of another one of said plurality of said transceivers, said control device of said one of said plurality of said transceivers prevents a retransmission of the ones of the communication information if during the retransmitting of the ones of the communication information an error was detected (page 5, paragraph 87); and when the ones of the communication information are received, which are not intended for said one of said plurality of said transceivers and which have been identified as being retransmitted by said control device of another one of said plurality of said transceivers, said control device of said one of said plurality of said transceivers prevents a retransmission of the ones of the communication information if a bus section is, selected from the group consisting of an occupied one of said plurality of said first bus sections and an occupied one of said plurality of said second bus sections, via which the ones of the communication information are to be forwarded (page 3, paragraph 60).

In view of this, it would have been obvious to one skilled in the art to modify Shiragaki's system, by incorporating Yim's teaching of identifying retransmitted data, in order to distinguish first transmitted information from retransmitted information.

Shiragaki fails to explicitly teach wherein when one of said plurality of said transceivers initiates a transmission of the communication information on said communication bus, the one of said plurality of said transceivers simultaneously transmits the communication information in the clockwise direction and in the counterclockwise direction.

However, Fawaz teaches wherein when one of said plurality of said transceivers initiates a transmission of the communication information on said communication bus, the one of said plurality of said transceivers simultaneously transmits the communication information in the clockwise direction and in the counterclockwise direction (col. 12, lines 64-66).

Thus, it would have been obvious to one skilled in the art to modify Shiragaki's system by simultaneously transmitting in the clockwise and counterclockwise direction, so as to ensure reliability (col. 12, lines 66-67).

Regarding claims 2, 32 and 48, Shiragaki teaches a system wherein said control device activates the transmitters and receivers.

Shiragaki fails to explicitly disclose of each one of said plurality of said transceivers constructed such that, when the first ones of the communication information and the second ones of the communication information are not being transmitted by said one of said plurality of said transceivers, said control device of said one of said plurality of said transceivers activates said first receiver and said second receiver.

However, it would have been obvious to one skilled in the art to provide a control device that will activate the first and second receiver when information is not transmitted, so as to allow information to be received at the transceiver.

Regarding claims 3, 33 and 49, Shiragaki teaches a system wherein said control device activates the transmitters and receivers.

Shiragaki fails to explicitly disclose each one of said plurality of said transceivers is constructed such that, when ones of the communication information not intended for said one of said plurality of said transceivers is received by a receiver selected from the group consisting of said first receiver and said second receiver, said control device of said one of said plurality of said transceivers activates a transmitter selected from the group consisting of said first transmitter and said second transmitter.

However, it would have been obvious to one skilled in the art to provide a control device that will activate the first or second transmitter when information is not intended to be received by the transceiver, so as to allow information to be transmitted by the transceiver.

Regarding claims 4, 36 and 52, Shiragaki teaches a system wherein said control device activates the transmitters and receivers.

Shiragaki fails to explicitly disclose each one of said plurality of said transceivers constructed such that, when a communication information not intended for said one of said plurality of said transceivers is received by a receiver selected from the group consisting of said first receiver and said second receiver, then: said control device of said one of said transceivers activates a given transmitter, selected from the group consisting of said first transmitter and said second transmitter, only if no communication information is currently being received via one of said plurality of said bus sections associated with said given transmitter.

However, it would have been obvious to one skilled in the art to realize when information is not being received, a transmitter will be activated when no information is

being received on the bus section associated with the given transmitter, so as to allow the transceiver to transmit information on that particular bus section.

Regarding claims 5, 37 and 53, Shiragaki teaches a system wherein each one of said plurality of said transceivers transmit and forward information. Although it would be obvious for a storage device to exist when transmitting/receiving information through transceivers, Shiragaki fails to explicitly disclose a storage device for storing communication information that is defined as stored communication information and that is selected from the group consisting of information to be transmitted and information to be forwarded.

However, Yim disclose a storage device for storing information to be transmitted and forwarded (buffers 26 and 27 within node 17; page 6, paragraph 111).

In view of this, it would have been obvious to one skilled in the art to modify Shiragaki's system by including Yim's storage device, for the purpose of maintaining the information that is transmitted and received by the transceiver.

Regarding claims 6, 38 and 54, Shiragaki teaches a system wherein said control device activates the transmitter and receiver, however fails to explicitly disclose a storage device.

Yim teaches a control device of each of said transceivers is constructed such that, if ones of the communication information are currently being received via said respective one of said plurality of said first bus sections and if said first transmitter is to be activated, then after a predetermined delay time, the stored communication information is read out from said storage device and is attempted to be forwarded via

said respective one of said plurality of said first bus sections; and said control device of each of said transceivers is constructed such that, if ones of the communication information are currently being received via said respective one of said plurality of said second bus sections and if said second transmitter is to be activated, then after a predetermined delay time, the stored communication information is read out from said storage device and is attempted to be forwarded via said respective one of said plurality of said second bus sections (page 6, paragraphs 111-112).

In view of this, it would have been obvious to one skilled in the art to modify Shiragaki's system by including Yim's storage device for reading out information after a specified period of time, so as to forward data held in the storage device and avoid system delay and congestion.

Regarding claim 9, Shiragaki teaches a communication system, comprising: a plurality of transceivers (Figs. 1 & 2; nodes 105-108); a communication bus connected to said plurality of said transceivers to enable transmission of communication information between individual ones of said plurality of said transceivers (see Fig. 1); said communication bus having a ring-shaped structure connecting each one of said plurality of said transceivers to a respective one of said plurality of said transceivers that is adjacent in a clockwise direction, defined as a respective clockwise adjacent transceiver, and to a respective one of said plurality of said transceivers that is adjacent in a counterclockwise direction, defined as a respective counterclockwise adjacent transceiver (col. 4, lines 51-60); said communication bus having a plurality of bus sections defining a plurality of first bus sections and a plurality of second bus sections

(see Fig. 1; bus sections between nodes); each one of said plurality of said transceivers being connected to said respective clockwise adjacent transceiver via a respective one of plurality of said first bus sections (see Fig. 1; bus sections between nodes); each one of said plurality of said transceivers being connected to said respective counterclockwise adjacent transceiver via a respective one of said plurality of said second bus sections (see Fig. 1; bus sections between nodes); each one of said plurality of said transceivers including a first receiver (Fig. 2; ingress line 101 at ADM 209) and a first transmitter (Fig. 2; egress line 101 at ADM 209) that are associated with a respective one of said plurality of said first bus sections; each one of said plurality of said transceivers including a second receiver (ingress line 102 at ADM 210) and a second transmitter (egress line 102 at ADM 210) that are associated with a respective one of said plurality of said second bus sections; each one of said plurality of said transceivers including a control device (see Fig. 2; monitor 215 coupled to switches 211-214) for controlling said first receiver of said one of said plurality of said transceivers, said second receiver of said one of said plurality of said transceivers (see Fig. 2; col. 5, lines 39-50), said first transmitter of said one of said plurality of said transceivers, and said second transmitter of said one of said plurality of said transceivers (see Fig. 2; col. 5, lines 39-50); said control device of each of said transceivers activating said first transmitter for transmitting first ones of the communication information in the clockwise direction via said communication bus (col. 5, lines 51-64); and said control device of each of said transceivers activating said second transmitter for transmitting second ones of the communication information in the

counterclockwise direction via said communication bus (col. 5, lines 51-64); for each one of the communication information to be transmitted, a particular one of said plurality of said transceivers is defined as a switching unit (col. 5, lines 17-24, switches 305, 306, 211-214).

Shiragaki fails to explicitly disclose a storage device.

However, Yim teaches transceivers including a storage device (Fig. 10a; buffers 26 and 27, within node 17A) for storing communication information that is defined as stored communication information and that is selected from the group consisting of information to be transmitted and information to be forwarded (page 6, paragraph 111); said control device of said switching unit is constructed such that, when corresponding ones of the communication information are received via a corresponding bus section selected from the group consisting of one of said plurality of said first bus sections and one of said plurality of said second bus sections, said control device of said switching unit temporarily stores the ones of the communication information in said storage device of said switching unit and forwards the ones of the communication information via another corresponding bus section selected from the group consisting of one of said plurality of said first bus sections and one of said plurality of said second bus sections, after a predetermined period of time has elapsed (page 6, paragraph 111).

In view of this, it would have been obvious to one skilled in the art to modify Shiragaki's system by including Yim's storage device, for the purpose of maintaining the information that is transmitted and received by the transceiver.

Shiragaki fails to explicitly teach wherein when one of said plurality of said transceivers initiates a transmission of the communication information on said communication bus, the one of said plurality of said transceivers simultaneously transmits the communication information in the clockwise direction and in the counterclockwise direction.

However, Fawaz teaches wherein when one of said plurality of said transceivers initiates a transmission of the communication information on said communication bus, the one of said plurality of said transceivers simultaneously transmits the communication information in the clockwise direction and in the counterclockwise direction (col. 12, lines 64-66).

Thus, it would have been obvious to one skilled in the art to modify Shiragaki's system by simultaneously transmitting in the clockwise and counterclockwise direction, so as to ensure reliability (col. 12, lines 66-67).

Regarding claim 10, Shiragaki teaches the communication system according to claim 9, wherein: said control device of said switching unit is constructed such that, within the predetermined period of time, the corresponding ones of the communication information have been received both via one of said plurality of said first bus sections and one of said plurality of said second bus sections (col. 5, lines 39-50).

Shiragaki fails to explicitly disclose temporarily storing the communication information.

However, Yim teaches said control device of said switching unit temporarily storing the corresponding ones of the communication information and after the

predetermined period of time has elapsed, said control device of said switching unit forwarding the corresponding ones of the communication information (page 6, paragraph 111).

In view of this, it would have been obvious to one skilled in the art to modify Shiragaki's system by including Yim's storage device for temporarily storing communication information, for the purpose of maintaining the information that is transmitted and received by the transceiver.

Regarding claim 11, Shiragaki teaches the communication system according to claim 9, wherein: said control device of said switching unit is constructed such that, if within the predetermined period of time, the corresponding ones of the communication information have been received only via a bus section selected from the group consisting of one of said plurality of said first bus sections and one of said plurality of said second bus sections (col. 5, lines 12-24).

Shiragaki fails to explicitly teach said control device of said switching unit only reading out of said storage device and forwarding the corresponding ones of the communication information.

However, Yim teaches control device of said switching unit only reading out of said storage device and forwarding the corresponding ones of the communication information.

Regarding claims 12, 43 and 60, Shiragaki teaches said communication bus including a first communication channel for exclusively transmitting the communication information in the clockwise direction; and said communication bus includes a second

communication channel for exclusively transmitting the communication information in the counterclockwise direction (col. 4, lines 51-60).

Regarding claims 13, 44 and 61, Shiragaki teaches said first receiver of each one of said plurality of said transceivers having an input connected to said first communication channel of said plurality of said first bus sections (Fig 2, line 101 entering 300); said second receiver of each one of said plurality of said transceivers having an input connected to said second communication channel of said plurality of said second bus sections (line 102 entering 300'); said first transmitter of each one of said plurality of said transceivers having an output connected to said first communication channel of said plurality of said first bus sections (line 101 exiting 307); and said second transmitter of each one of said plurality of said transceivers having an output connected to said second communication channel of said plurality of said second bus sections (line 102 exiting 307').

Regarding claim 14, Shiragaki teaches the control device of each of said transceivers is constructed to activate said first transmitter to transmit the first ones of the communication information in the clockwise direction via said first communication channel (col. 5, lines 51-64); and said control device of each of said transceivers is constructed to activate said second transmitter to transmit the second ones of the communication information in the counterclockwise direction via said second communication channel (col. 5, lines 51-64).

Regarding claim 15, Shiragaki teaches the same limitations described above in the rejection of claim 9. Shiragaki fails to explicitly disclose a storage device.

However, Yim teaches each one of said plurality of said transceivers including a storage device for storing stored communication information to be transmitted to another one of said plurality of said transceivers (Fig. 10a; buffers 26 and 27 within node 17; page 6, paragraph 111).

In view of this, it would have been obvious to one skilled in the art to modify Shiragaki's system by including Yim's storage device, for the purpose of maintaining the information that is transmitted and received by the transceiver.

Regarding claim 16, Shiragaki teaches the same limitations described above in the rejection of claim 2.

Regarding claim 17, Shiragaki teaches the same limitations described above in the rejection of claim 3.

Regarding claims 18, 29, 34, 45, 50 and 62, Shiragaki teaches said control device of each of said transceivers is constructed to activate said first transmitter to transmit given ones of the communication information in the clockwise direction via said communication bus (col. 5, lines 51-64); and said control device of each of said transceivers is constructed to activate said second transmitter to transmit given ones of the communication information in the counterclockwise direction via said communication bus (col. 5, lines 51-64).

Regarding claims 19, 30, 35, 46, 51 and 63, Shiragaki teaches said control device of each of said transceivers is constructed to activate said first transmitter to transmit first ones of the communication information in the clockwise direction via said communication bus (col. 5, lines 51-64); and said control device of each of said

transceivers is constructed to activate said second transmitter to transmit first ones of the communication information in the counterclockwise direction via said communication bus (col. 5, lines 51-64).

Regarding claim 20, Shiragaki teaches the same limitations described above in the rejection of claim 4.

Regarding claim 21, Shiragaki teaches the same limitations described above in the rejection of claim 6.

Regarding claim 22, Shiragaki teaches the same limitations described above in the rejection of claim 7.

Regarding claims 23 and 56, Shiragaki teaches the communication system according to claims 22 and 47. Shiragaki fails to explicitly teach identifying retransmitted communication information.

However, Yim teaches transceivers constructed to identify retransmitted communication information (page 4, paragraph 83, page 5, paragraph 91); and said control device of each one of said plurality of said transceivers constructed such that: when ones of the communication information are received, which are not intended for said one of said plurality of said transceivers and which have been identified as being retransmitted by said control device of another one of said plurality of said transceivers, said control device of said one of said plurality of said transceivers prevents a retransmission of the ones of the communication information if during the retransmitting of the ones of the communication information an error was detected (page 5, paragraph 87); and when the ones of the communication information are received, which are not

intended for said one of said plurality of said transceivers and which have been identified as being retransmitted by said control device of another one of said plurality of said transceivers, said control device of said one of said plurality of said transceivers prevents a retransmission of the ones of the communication information if a bus section is, selected from the group consisting of an occupied one of said plurality of said first bus sections and an occupied one of said plurality of said second bus sections, via which the ones of the communication information are to be forwarded (page 3, paragraph 60).

In view of this, it would have been obvious to one skilled in the art to modify Shiragaki's system, by incorporating Yim's teaching of identifying retransmitted data, in order to distinguish first transmitted information from retransmitted information.

Regarding claims 25, 41 and 58, Shiragaki teaches the same limitations described above in the rejection of claim 10.

Regarding claims 26, 42 and 59, Shiragaki teaches the same limitations described above in the rejection of claim 11.

Regarding claim 27, Shiragaki teaches the same limitations described above in the rejection of claim 12.

Regarding claim 28, Shiragaki teaches the same limitations described above in the rejection of claim 13.

Regarding claim 40, Shiragaki teaches the same limitations described above in the rejection of claim 9.

Regarding claim 47, Shiragaki teaches the same limitations described above in the rejection of claim 9. Shiragaki further teaches a control device being constructed to identify faulty communication information and to forward the identified faulty communication information (col. 6, lines 1-15).

Regarding claim 55, Shiragaki teaches the communication system according to claim 53, wherein said control device of each of said transceivers is constructed such that, when an operation is being performed that is selected from the group consisting of transmitting the communication information and forwarding the communication information, said control device performing the transmitting checks for an error and if the error is found, said control device performing the transmitting, after a given delay time, causes an operation to be performed that is selected from the group consisting of retransmitting the communication information and forwarding the communication information via a transmitter that is selected from the group consisting of said first transmitter and said second transmitter (col. 6, lines 1-15).

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RHONDA MURPHY whose telephone number is (571)272-3185. The examiner can normally be reached on Monday - Friday 9:00 - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Murphy
Examiner
Art Unit 2416

/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2416